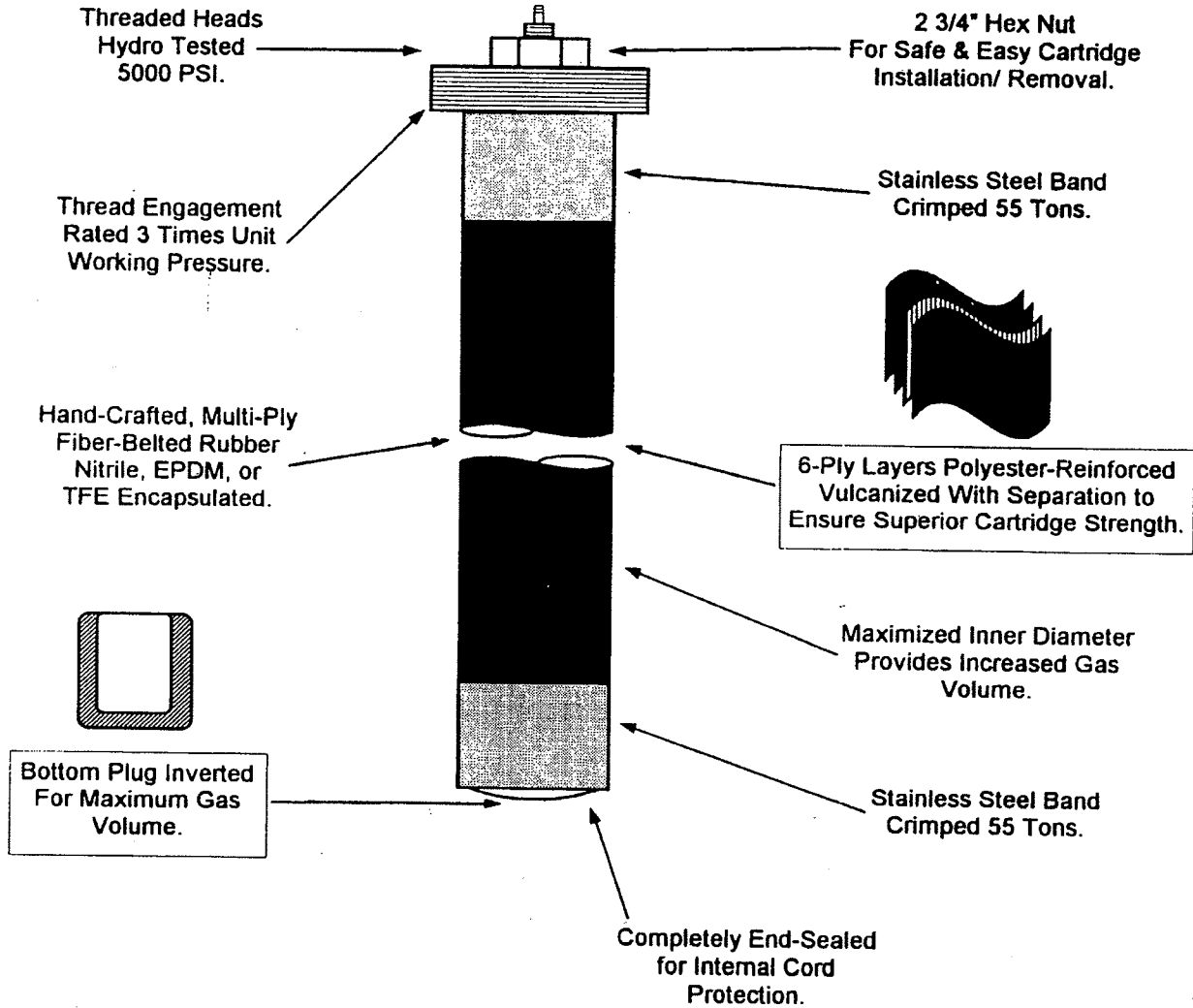


# COORST<sup>TEK</sup> Pulsation Stabilizers: Amazing Solutions

## Cartridge Design Features



Shown here is the six-ply discharge cartridge with threaded connection. Every COORST<sup>TEK</sup> cartridge is pre-stretched and tested with Nitrogen only. 48 Hours. Maximum pressure. No deviation.  
*That's the COORST<sup>TEK</sup> Standard.*

# Maintenance Guide

Maintenance on Coorstek Pulsation Stabilizers consists of two functions:

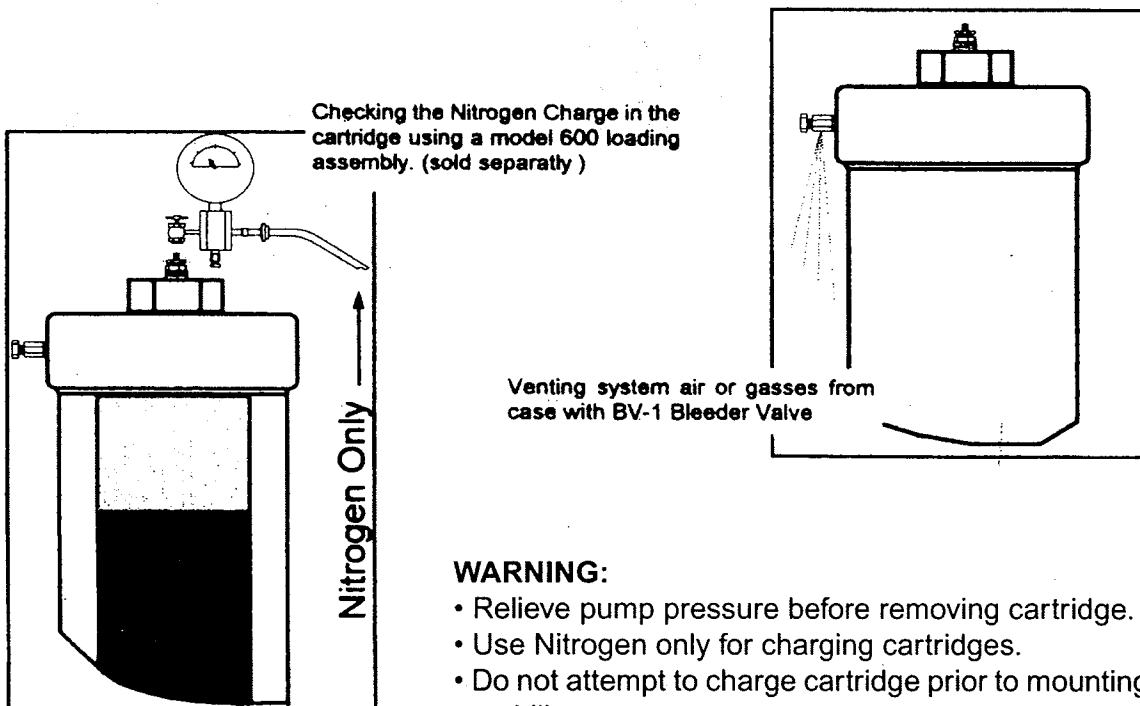
1. Checking the nitrogen charge in the cartridge.
2. Venting system air or gases from the stabilizer case.

Both functions are performed following the same procedures and safety precautions outlined in the *Charging Instructions for COORSTEK Pulsation Stabilizers*.

## Frequency of Maintenance:

Cartridges are similar to car tires in that maintaining the proper inflation ensures more efficient operation, safer running, and longer life. Cartridges are also like tires in that they do experience small amounts of seepage over a period of time from normal use.

- Cartridges should be checked and maintained at least every two to three months.
- System's operating with excessive ratio of bore to stroke to RPM should be checked more frequently depending on the degree of severity.
- In systems with excessive amounts of air or gas entrained in the fluid, venting the stabilizer should become a regular part of the system's weekly maintenance routine.



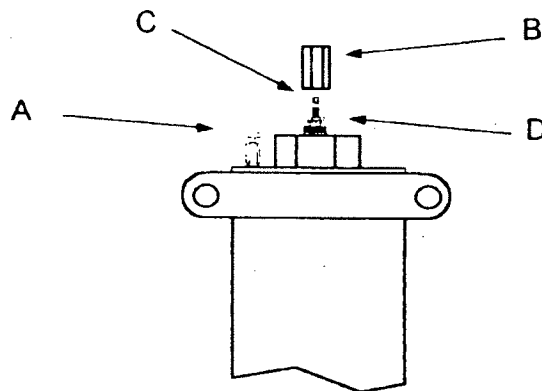
## WARNING:

- Relieve pump pressure before removing cartridge.
- Use Nitrogen only for charging cartridges.
- Do not attempt to charge cartridge prior to mounting stabilizer.
- Relieve cartridge pressure prior to working on pump.
- Follow Charging instructions for tuning stabilizers to pumping conditions.
- Failure to follow warning is dangerous and can result in property damage and/or serious bodily injury or death.

# Charging Instructions For Pulsation Stabilizers:

## Suction

1 Shut down pump and relieve line pressure from discharge side before closing suction valve. After discharge line is relieved of pressure, close suction line valve and drain suction line.



**SUCTION:  
90% of  
Line  
Pressure**

Determining line pressure when using tank head:  
Multiply height of fluid column above suction valves X 0.433

- 2 Open bleeder valve 'A'
- 3 Remove loading valve protector cap (dust cover) 'B'
- 4 Remove yellow cap from loading valve 'C'
- 5 Loosen safety nut 'D' 1 1/2 full turns
- 6 Using Nitrogen Only, charge the cartridge through loading valve 'C' to the recommended charge pressure of 90% of suction pressure.

***Do not exceed the cartridge's maximum charge pressure.***

35		100-U	300/600-G	300/600-T	900/1200-GM	900/1200-M
2-Ply		100PSI	100PSI	100PSI	-	
4-Ply	300	-	300PSI	300PSI	125 PSI	125 PSI
6-Ply	500	300PSI	-	500PSI	-	300 PSI

- 7 Close safety nut 'D'
- 8 Install valve cap to 'C'
- 9 Install protector cap (dust cover) 'B'
- 10 Open suction valve. When air from bleeder valve 'A' is evacuated, close bleeder valve 'A'.

**Nitrogen  
Only**

# Charging Instructions For COORST<sup>TEK</sup>™ Pulsation Stabilizers: *Discharge*

1 Shut down pump and relieve line pressure.

2 Open bleeder valve 'A'

3 Remove loading valve protector cap (dust cover) 'B'

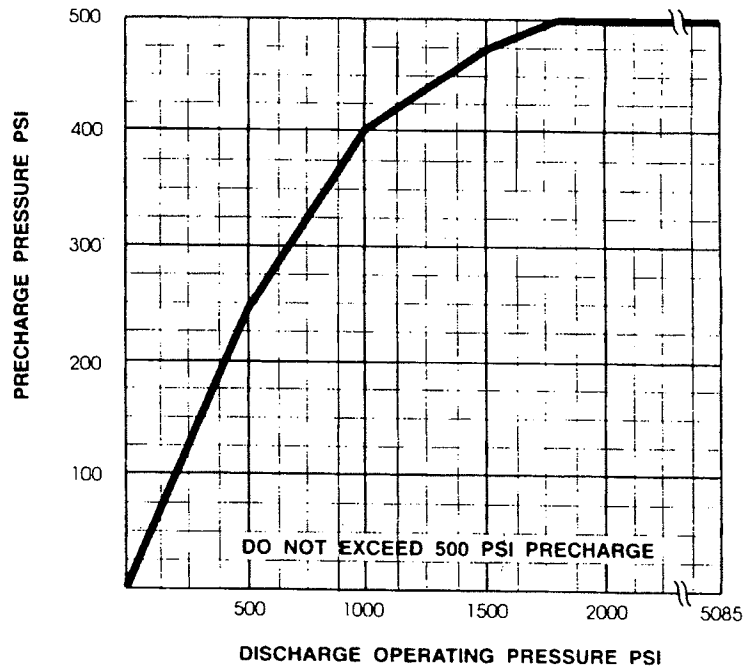
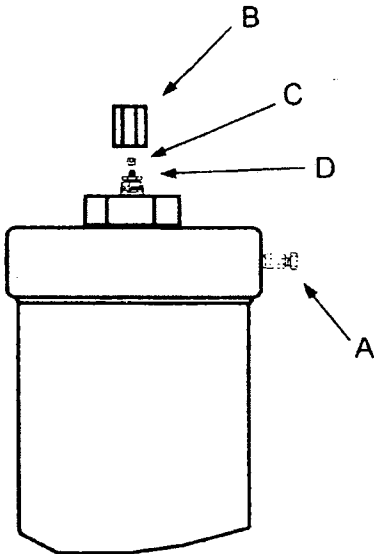
4 Remove yellow cap from loading valve 'C'

5 Loosen safety nut 'D' 1 1/2 full turns

6 Using Nitrogen, charge cartridge through loading valve 'C'. Use chart below to determine correct charge pressure.

## DISCHARGE: Use Chart

DO NOT charge discharge cartridges to  
90% of line pressure.  
Use the chart below to determine correct  
cartridge precharge pressure.



**Do not exceed the cartridge's maximum charge pressure.**

35		100-U	300/600-G	300/600-T	900/1200-GM	900/1200-M
2-Ply		100PSI	100PSI	100PSI	-	
4-Ply	( <sup>300</sup> / <sub>500</sub> )		300PSI	300PSI	125 PSI	125 PSI
6-Ply		300PSI	-	500PSI	-	300 PSI

7 Close safety nut 'D'

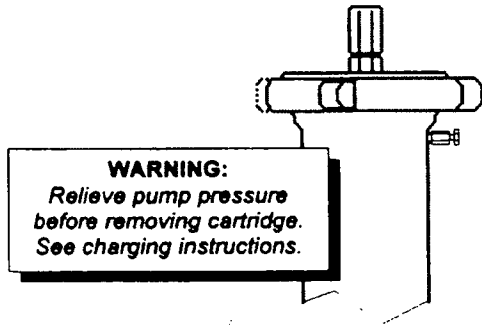
8 Install valve cap to 'C'

9 Install protector cap (dust cover) 'B'

10 Open suction valve. When air from bleeder valve 'A' is evacuated, close bleeder valve 'A'.

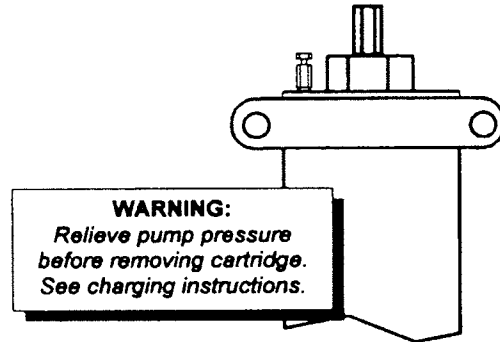
# Installing Replacement Cartridges

## U-Series Union Head Connection



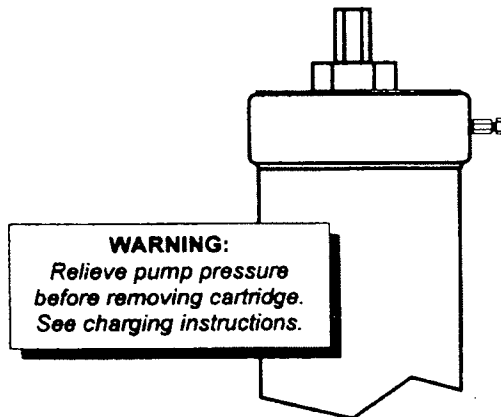
- Check and clean union threads (wingnut & case)
- Check cartridge head o-ring
- Check and clean o-ring seat groove
- Lubricate and install o-ring
- Apply anti-seize to union threads
- Insert cartridge
- Replace wing nut

## G & GM Series Grooved Coupling



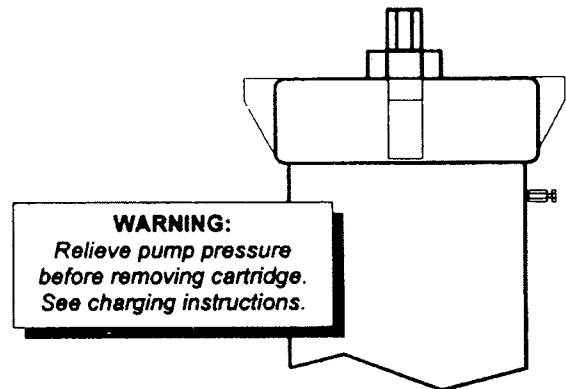
- Check and clean groove on case and cartridge
- Check coupling gasket Lubricate and install gasket Insert cartridge (Join case and cartridge ends)
- Replace coupling - Tighten nuts alternately and equally - Torque nuts to 135 ft. lbs.

## T-Series Threaded Head Connection



- Check and clean cartridge & case threads
- Check HPG-1 o-ring
- Lubricate and install o-ring
- Apply anti-seize to case threads
- Insert cartridge
- Tighten until o-ring seal is secure

## M-Series Wing Nut Connection



- Check and clean case and wingnut threads
- Check cartridge head o-rings (2)
- Check and clean o-ring seat grooves (2)
- Lubricate and install o-rings (2)
- Apply anti-seize to case threads
- Insert cartridge
- Replace wingnut - Secure seal top o-rings

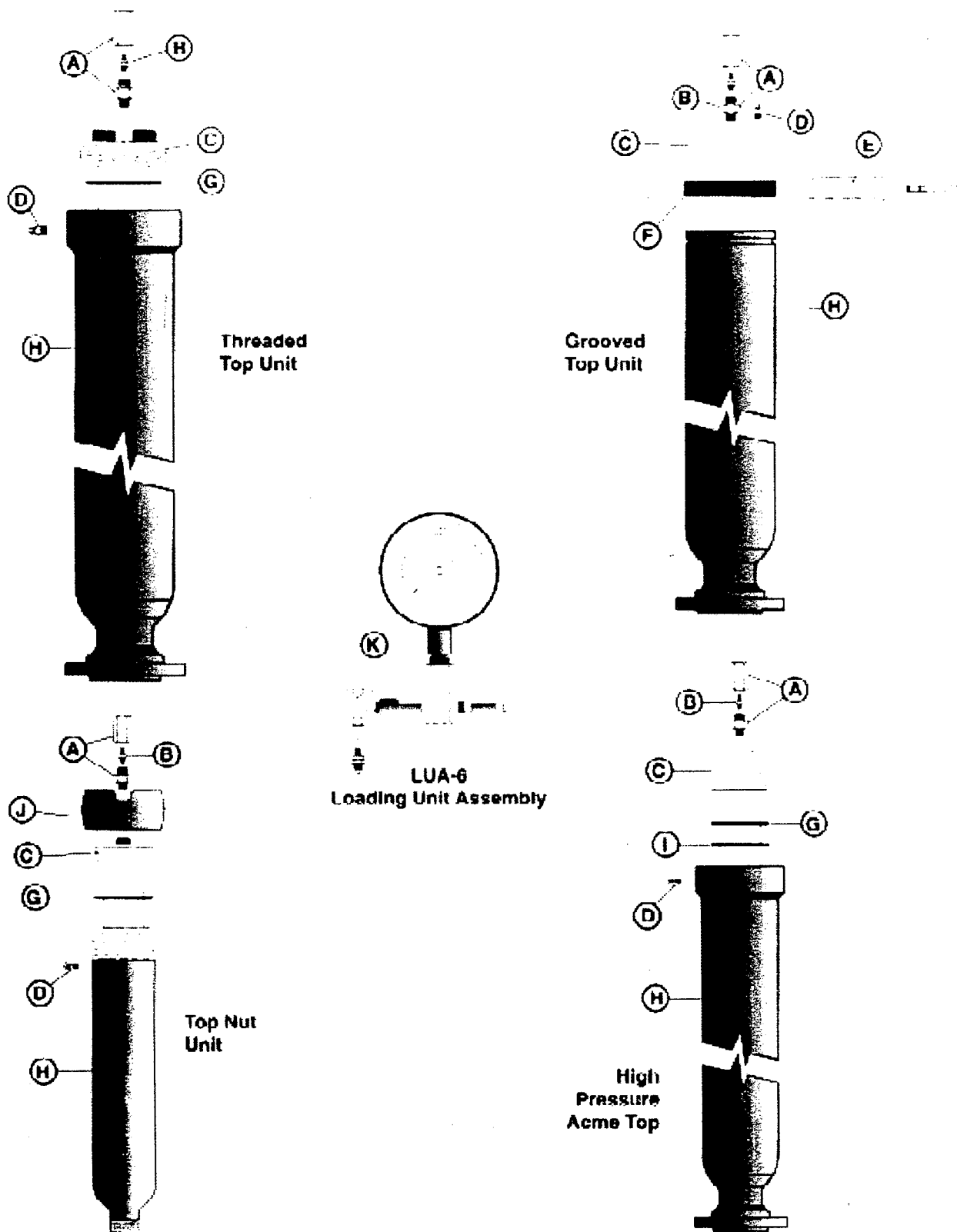
# COORST<sup>TEK</sup> Pulsation Stabilizers:

*Amazing Solutions*

## Replacement Cartridges

Stabilizer Model Number	Cartridge Part Number	Number of Plies	Maximum Cartridge Charge PSI	Maximum Unit Operating PSI
U-1500	U-182-CR	2-PLY	100 PSI	150 PSI
U-4500	U-186-CR	6-PLY	300 PSI	450 PSI
U-7000	U-186-CR	6-PLY	300 PSI	700 PSI
U-14000	U-186-CR	6-PLY	300 PSI	1400 PSI
U-21000	U-186-CR	6-PLY	300 PSI	1400 PSI
SG-1500	G-224-CR	2-PLY	100 PSI	150 PSI
ST-1500	T-224-CR	2-PLY	100 PSI	150 PSI
SG-4500	G-424-CR	4-PLY	300 PSI	450 PSI
ST-7000	T-424-CR	4-PLY	300 PSI	700 PSI
G-1500	G-248-CR	2-PLY	100 PSI	150 PSI
T-1500	T-248-CR	2-PLY	100 PSI	150 PSI
G-4500	G-448-CR	4-PLY	300 PSI	450 PSI
T-7000	T-448-CR	4-PLY	300 PSI	700 PSI
MM-1500	M-436-CR	4-PLY	125 PSI	150 PSI
MM-4500	M-436-CR	4-PLY	125 PSI	450 PSI
M-1500	M-448-CR	4-PLY	125 PSI	150 PSI
M-4500	M-448-CR	4-PLY	125 PSI	450 PSI
M-14000	M-648-CR	6-PLY	300 PSI	1400 PSI
ST-14000	T-624-CR	6-PLY	500 PSI	1400 PSI
ST-21000	T-624-CR	6-PLY	500 PSI	2100 PSI
ST-35400	A-624-CR	6-PLY	500 PSI	3600 PSI
ST-50850	A-624-CR	6-PLY	500 PSI	5000 PSI
T-14000	T-648-CR	6-PLY	500 PSI	1400 PSI
T-21000	T-648-CR	6-PLY	500 PSI	2100 PSI
T-35400	A-648-CR	6-PLY	500 PSI	3600 PSI
T-50850	A-648-CR	6-PLY	500 PSI	5000 PSI
SGM-1500	GM-424-CR	4-PLY	125 PSI	150 PSI
MGM-1500	GM-436-CR	4-PLY	100 PSI	150 PSI
GM-1500	GM-448-CR	4-PLY	100 PSI	150 PSI

# PARTS FOR SUCTION AND DISCHARGE STABILIZERS



# PARTS FOR SUCTION AND DISCHARGE STABILIZERS

## PARTS LIST

Reference	Part No.	Description	Product No.
A	CV-1	Charging Valve Assembly	195-030-7515
A	CV-1	Charging Valve Assembly - Old Style Consists Of - Not Shown -	195-030-7450 195-031-6000
		PROTECTOR VALVE ADAPTER	495-035-7515
B	LV-1	Loading Valve	195-031-6000
C		Replacement Cartridge	
D	BV-1	Bleeder Valve	195-030-7000
E	PE-6	Coupling Complete with Gasket, SG & G Series	195-031-7000
E	PE-8	Coupling Complete with Gasket, GM, MGM & SGM Series	
F	PE-6-R	Gasket (Coupling Type Buna-N) SG & G Series	195-031-8000
F	PE-8-R	Gasket (Coupling Type Buna-N) GM, MGM & SGM Series	
F	PE-6-RN	Gasket (Coupling Type Nordel) SG & G Series	195-031-8100
F	PE-8-RN	Gasket (Coupling Type Nordel) GM, MGM & SGM Series	
G	HPG-OR	"O" Ring Gasket for Old Series 50000 & 65000 Series Units (Teflon)	164-568-3501
G	HPG-1	Gasket for 14000 thru 21000 & 36000 Series Units (Buna-N)	195-031-3000
G	HPG-1-S	Gasket for 14000 thru 21000 & 36000 Series Units (Nordel)	195-031-3100
G	MOR-1	"O" Ring for M Series (Buna-N)	164-568-4420
G	MOR-1-N	"O" Ring for M Series (Nordel)	164-568-4425
G	OC	"O" Ring for C Series (Buna-N)	164-568-3420
G	OCN	"O" Ring for C Series (Nordel)	164-568-3421
G	OCT	"O" Ring for C Series (Teflon)	164-568-3422
G	AOR	"O" Ring for 3540 & 5085 Series (Buna-N)	164-568-3600
G	AOR-S	"O" Ring for 3540 & 5085 Series (Viton)	164-568-3601
H		Case only-Contact your COORSTEK Representative	
I	AFG	Teflon Gasket for 3540 & 5085	195-031-3300
J		Top Nut for C Series	195-715-0100
J	MIN-1	Top Nut for M Series	195-031-8200
K	LUA-6	Loading Unit Assembly, including 600# Gage	195-030-7520